ABSTRACT

TRAFFIC LIGHT 4 TRACK WITH TIMING CONTROL BASED MICROCONTROLLER ATMEGA128

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Preparation of final project aims to (1) Make the hardware Traffic Light 4 track with Timing Control Based Microcontroller ATmega128, (2) Creating a program in C language commands (software) Traffic light 4 track with Timing Control Based Microcontroller ATmega128, (3) Determine the performance of the Traffic light 4 track with Timing Control Based Microcontroller ATmega128.

This tools is made in several stages, namely, (1) Identification of Needs, (2) Need Analysis, (3) Design of the system, (4) Hardware Design, (5) Software Design, (6) Preparation and, (7) Testing tool. This tool works with the main controller microcontroller ATmega128 are supported sensors. Microcontroller ATmega128 programming language C is made by using CV AVR 2.05.3. Hardware that supports these include power supply, the minimum system ATmega128, sensor, LCD and seven segment circuit.

Test results that have implemented the conclusion that the hardware has been successfully made using ATmega128 minimum system combined with photoelectric sensors. The software has also been successfully created using the C programming language that di-comple using CV AVR. Overall this sotware is able to work in accordance with a predeterminted function, which displays the data to the LCD, set the sensor, and display time using a seven segment.

Keywords : Traffic light 4 track, Timing Control, ATmega128, and CV AVR.